

IN THE CLAIMS:

Please cancel claims 1-35.

Please add new claims 36-62 as follows:

Sub 27

~~36. (New) A downhole bypass tool comprising:~~

~~a body adapted to be mounted on a tubular string and defining an axial through
bore to allow fluid to flow through the body and including a wall defining a fluid port
for permitting passage of fluid between the body bore and the exterior of the body;~~

~~an operating sleeve mounted to the body and normally positioned to close the
fluid port;~~

~~an activating device adapted to be dropped through the string to land on the
operating sleeve; and~~

~~a flow restriction operatively associated with the operating sleeve and located
upstream of the port, the flow restriction being configured to create a fluid flow-
related force on the operating sleeve for moving the sleeve to open the body port
following landing of the activating device.~~

~~37. (New) The tool of claim 36, wherein the activating device provides
the flow restriction.~~

~~38. (New) The tool of claim 36, further comprising a biasing member for
urging the operating sleeve to close the fluid port.~~

10031219.011502

1 *Sub 32* 39. (New) ~~The tool of claim 36, further comprising locking means for~~
2 retaining the operating sleeve in position to close the fluid port, the locking means
3 releasing the operating sleeve on landing of the activating device on the sleeve.

1 40. (New) The tool of claim 39, wherein the locking means includes a
2 coupling for releasably coupling the operating sleeve to the body.

1 41. (New) The tool of claim 36, further comprising at least two axially
2 spaced flow restrictions associated with the operating sleeve and located upstream of
3 the port.

1 42. (New) The tool of claim 36, wherein the activating device is an
2 activating sleeve having an axial through bore.

1 43. (New) The tool of claim 36, wherein the activating device is a
2 deformable plug.

1 44. (New) The tool of claim 43, wherein the deformable plug is a ball.

1 45. (New) The tool of claim 36, further comprising indexing means for
2 controlling movement of the operating sleeve and configured to permit the operating
3 sleeve to be retained in one of the port open and port closing positions while fluid
4 flow through the tool is maintained at a normal operational level.

10031219-011502

Sub B27

2

46. (New) The tool of claim 45, wherein the indexing means includes a cam arrangement.

1

2

47. (New) A method of providing fluid bypass in a downhole string, the method comprising the steps:

3

4

providing a bypass tool having a body defining an axial through bore and including a wall defining a fluid port, and an operating sleeve mounted to the body and normally positioned to close the port;

5

6

running the tool into a bore on a string;

7

8

dropping an activating device through the string to land on the operating sleeve; and

9

10

11

12

passing fluid through the string, body and operating sleeve, and also a flow restriction operatively associated with the operating sleeve and located upstream of the port, at selected flow rates to create selected fluid flow-related forces on the operating sleeve to move the sleeve to open the port.

1

2

3

4

48. (New) The method of claim 47, further comprising maintaining fluid flow through the string, body and operating sleeve at a normal operational level at least as the activating device passes through the string and lands on the operating sleeve.

1

2

49. (New) The method of claim 48, further comprising maintaining fluid flow through the string, body and operating sleeve at a normal operational level

10031219.011502

Sub B27
1 following landing of the activating device on the operating sleeve, and at least initially
4 retaining the sleeve in position to close the fluid port.

1 50. (New) A downhole tool having first and second configurations and
2 adapted to be run into a bore in the first configuration, the tool comprising:

3 a body adapted to be mounted on a tubular string and having an axial through
4 bore for permitting passage of fluid therethrough while the tool remains in the first
5 configuration;

6 an activating sleeve configured to travel through the string to land on the body
7 and activate the tool; and

8 flow responsive means for cycling the activated tool between the first and
9 second configurations in response to variations in fluid flowrate through the tool.

1 51. (New) The tool of claim 50, further comprising indexing means for
2 controlling cycling of the tool between the first and second configurations and
3 permitting the tool to be in either one of the first and second configurations while the
4 fluid flowrate is maintained at a normal, operational level.

1 52. (New) The tool of claim 50, wherein the activating sleeve is adapted
2 to release a coupling on landing on the body to activate the tool into the second
3 configuration.

1 53. (New) The tool of claim 50, further including means for biasing the
2 tool towards the first configuration.

10031229011502

Sub B27

1 54. (New) The tool of claim 50, wherein the flow responsive means
2 includes a differential piston.

1 55. (New) The tool of claim 50, wherein the flow responsive means
2 includes a flow restriction.

1 56. (New) The tool of claim 55, wherein the flow restriction is defined by
2 the activating sleeve.

1 57. (New) The tool of claim 55, wherein the flow responsive means
2 includes at least two axially spaced flow restrictions.

1 58. (New) The tool of claim 50, wherein the tool is a bypass tool, the body
2 defining a bypass port and wherein the bypass port is closed in the first configuration
3 and open in the second configuration.

1 59. (New) A method of operating a downhole tool, the method
2 comprising:

3 running a tool into a bore on a string with the tool in a first configuration;

4 passing fluid through the string and an axial through bore defined by the tool
5 with the tool remaining in the first configuration;

6 passing an activating sleeve from surface through the string to land on and
7 activate the tool; and

10031219-011502

96

S8d327

9 cycling the activated tool between first and second configurations in response
to variations in fluid flowrate through the tool.

1 60. (New) The method of claim 59, further comprising maintaining fluid
2 flow through the string and body at a normal operational level at least as the
3 activating sleeve passes through the string and lands on the tool.

1 61. (New) The method of claim 60; further comprising maintaining fluid
2 flow through the string and body at normal operational level following landing of the
3 activating sleeve on the tool, and at least initially retaining the tool in the first
4 configuration following landing of the activating sleeve on the tool.

1 62. (New) The method of claim 59, further comprising maintaining the
2 tool in the first configuration while the fluid flowrate is maintained at a normal,
3 operational level, and subsequently maintaining the tool in the second configuration
4 while the fluid flowrate is maintained at a normal, operational level.

10031219-011502